

ABSTRACT OF THE DISCLOSURE

A data transmission apparatus that transmits a data signal in accordance with a predetermined protocol in one direction within a ring network including a plurality of data transmission apparatuses. The apparatus includes a signal determination section for determining a presence or absence of a data signal from an immediately upstream data transmission apparatus in the ring network based on an amplitude of the data signal. A stopping section stops, transmission of the data signal to an immediately downstream data transmission apparatus if the signal determination section determines that there is no incoming data signal. The data signal is a signal obtained by modulating an amplitude component of an electrical signal of a predetermined frequency. Thus, the data transmission apparatus is able to quickly detect a momentary power interruption in a data transmission system composed of data transmission apparatuses interconnected in a ring fashion.